

IN THE CLAIMS

Cancel claims 1-29 and insert new claims 30-59.

30. (New) An air-permeable mattress with great lying comfort and low weight, at last comprising a combination of a foam core and air-filled pressure cushions, which are either arranged in openings of the foam core or enclose the foam core, and having through holes, which are provided in the foam core and/or in the pressure cushions for removing humidity.

31. (New) A mattress according to claim 30, wherein an upper support layer made of an especially air-permeable material is provided which rests on the foam core and/or the pressure cushion and supports the removal of secreted bodily humidity away from the body.

32. (New) A mattress according to claim 30, wherein the foam core and/or the pressure cushions rest on a bottom support layer made of an air-permeable material.

33. (New) A mattress according to claim 30, wherein the lying comfort is achieved by means of special pressure cushions which are configured as hollow cylinders.

34. (New) A mattress according to claim 30, wherein the arrangement of the pressure cushions is adjusted to the body zones.

35. (New) A mattress according to claim 30, wherein the pressure cushions are combined into zones and individual pressure resistances for each zone can be pre-selected.

36. (New) A mattress according to claim 30, wherein the pressure cushion is configured as a solid cylinder.

37. (New) A mattress according to claim 30, wherein additional openings are provided in the foam core outside of the pressure cushion which increase the air permeability.

38. (New) A mattress according to claim 30, wherein the pressure cushions are composed of several segments which are arranged so as to lie one above the other, with a pressure compensation occurring by means of internal connecting openings.

39. (New) A mattress according to claim 30, wherein the pressure cushions are arranged next to one another and are joined by means of connecting elements, so that a pressure compensation occurs via several mutually connected pressure cushions.

40. (New) A mattress according to claim 30, wherein adjacent pressure cushions are mutually joined in a cross-wise manner by means of connecting elements, so that pressure compensation occurs via several pressure cushions combined into one zone.

41. (New) A mattress according to claim 30, wherein the foam core consists of one layer.

42. (New) A mattress according to claim 30, wherein the foam core is composed of at least two layers with different degrees of hardness.

43. (New) A mattress according to claim 30, wherein several pressure cushions are combined into a zone and the pressure in said zone is adjustable in a continuous manner by means of a controllable valve.

44. (New) A mattress according to claim 30, wherein the lying surface of said mattress is subdivided into several zones, preferably three or five zones, with the pressure cushions of each zone being mutually connected by means of connecting elements and are each associated with a control valve.

45. (New) A mattress according to claims 30, wherein a system of pressure cushions is connected with an air pump composed of elastic elements and valves, which pump is arranged beneath the mattress, is integrated in the bottom support layer or arranged in the foam core, so that an air conveying process is enabled as a result of a shifting of weight of the person lying on the mattress.
46. (New) A mattress according to claim 45, wherein the air pump cooperates with a pressure control device for compensating a pressure loss as a result of a leakage loss.
47. (New) A mattress according to claim 45, wherein the air pump cooperates with a pressure control device for building up a purposeful increase in pressure in the pressure cushion.
48. (New) A mattress according to claim 45, wherein the foam core with the walls of the through holes are covered entirely by an air-tight layer.
49. (New) A mattress according to claim 48, wherein a special valve is provided which is configured as a controllable non-return valve in order to compensate leakage losses when, after a relief of the mattress, the foam material expands the mattress body back to its original form and a negative pressure arises in the interior.
50. (New) A mattress according to claim 48, wherein the through holes with foam cylinders are filled with especially air-permeable foam material.
51. (New) A mattress according to claim 48, wherein the pressure cushions are arranged in openings in the foam core transversally to the longitudinal axis and parallel to the lying surface.

52. (New) A mattress according to claim 51, wherein at least one pressure cushion is arranged in a zone with high pressure hardness as lordosis support.

53. (New) A mattress according to claim 51, wherein the lying surface of said mattress is subdivided into seven zones for achieving the highest amount of comfort.

54. (New) A mattress according to claim 51, wherein openings are provided which are arranged parallel to the lying surface and penetrate the width of the mattress.

55. (New) A mattress according to claim 54, wherein fresh air can be supplied for overall cooling and/or removal of humidity, or warm air for overall heating of the mattress through the openings which are arranged parallel to the lying surface and penetrate the width of the mattress.

56. (New) A mattress according to claim 54, wherein a blower is provided for conveying the air.

57. (New) A mattress according to claim 1, wherein sound-insulating material is provided in the inflow and outflow region of the pressure cushion for reducing the flow noises during a pressure compensation as a result of a change in the position of the person lying on the mattress.

58. (New) A mattress according to claim 1, wherein the system overpressure in the pressure cushion lies between 0.1 bar and 0.6 bar.

59. (New) A mattress according to claim 58, wherein said system overpressure is between 0.15 and 0.30 bar.